

In the Claims:

Claims 1 - 38(canceled).

Claim 39(canceled).

Claims 40 - 93(canceled).

Claim 94(canceled).

Claims 95 - 112(canceled).

113(currently amended). An equalization system adopted for use with an imaging system having ~~an array plurality of light detectors arranged in a detector array, an array of individual light-emitting sources corresponding to respective said light detectors~~ a light source, and an optical system disposed with respect to said array of light-emitting sources ~~an array of individual light-emitting sources corresponding to respective light detectors~~ so as to illuminate an object with light from ~~thesaid light-emitting sources~~ the said light-emitting sources and image the object on ~~thesaid corresponding light detectors array~~, the equalization system comprising:

a power supply adapted to supply to ~~thea plurality of illumination-light-emitting sources corresponding to the plurality of detectors~~ respect amounts of power that have definite relative magnitudes with respect to one another;

a signal conditioning circuit for receiving and digitizing output signals from a respective set of ~~said plurality of light detectors~~ so as to produce a respective set of output values, said signal conditioning circuit including a set of amplifiers corresponding to said set of the ~~plurality of light detectors~~ which apply gain to said output signals prior to digitization thereof; and

an equalizer system for equalizing said respective set of output values for a given amount of optical input power supplied to ~~the~~said set of light detectors, said equalizer system being adapted to equalize said set of output values by adjusting the relative amounts of power applied to said ~~set of said plurality of light-emitting~~ sources based on said output values so as to adjust the relative amounts of power applied to said ~~set of said plurality of light-emitting~~ sources and to provide correction signals to said amplifiers based on said output values so as to equalize said output values for said given amount of input power, and is further adapted to add to one or more of said output values respective error correction values so as to produce new respective values that are substantially equal for said given amount of input power.